US-PAT-NO:

5397192

DOCUMENT-IDENTIFIER:

US 5397192 A

TITLE:

Shuttle-type printers and methods for operating

same

: ----- KWIC -----

Brief Summary Text - BSTX (8):

Another problem relates to printer versatility. Printers are often called

upon to print on a wide variety of recording media having different widths and

printing surfaces. Common recording media include standard 81/2.times.11 inch

paper, A4 paper, and B4 paper. Additionally, printers are increasingly used to

print bar codes or other information on narrow, adhesive-backed labels. Prior

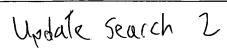
art printers detect various paper size using complex media feed sensors provided in the printer throat, or by sensing the type of tray used to store

the media that is inserted into the printer. It would be advantageous to

provide a simple, low cost method for detecting media width.

Current US Cross Reference Classification - CCXR (1): 347/37

L Number	Hits	Search Text	DB	Time stamp
1	1	("6290349").PN.	USPAT;	2004/01/13 14:27
2	1	("3990670").PN.	US-PGPUB USPAT;	2004/01/13 15:10
3	1	("4074872").PN.	US-PGPUB USPAT;	2004/01/13 15:10
_	178	347/104 and (print\$4 with vertical)	US-PGPUB USPAT;	2003/01/09 16:07
	52	347/105 and (print\$4 with vertical)	US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT;	2003/01/09 15:10
	<i>52</i>		US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	
-	33	(347/105 and (print\$4 with vertical)) not (347/104 and (print\$4 with vertical))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/01/09 15:05
_	80	347/101 and (print\$4 with vertical)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/01/09 16:54
_	51	(347/101 and (print\$4 with vertical)) not (347/104 and (print\$4 with vertical))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/01/09 15:10
_	40	((347/101 and (print\$4 with vertical)) not (347/104 and (print\$4 with vertical))) not (347/105 and (print\$4 with vertical))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/01/09 15:10
-	.20	347/109 and (print\$4 with vertical)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/01/09 15:23
_	19	(347/109 and (print\$4 with vertical)) not (347/104 and (print\$4 with vertical))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/01/09 15:23
-	19	((347/109 and (print\$4 with vertical)) not (347/104 and (print\$4 with vertical))) not (347/105 and (print\$4 with vertical))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/01/09 15:24
_	0	((((347/109 and (print\$4 with vertical)) not (347/104 and (print\$4 with vertical))) not (347/105 and (print\$4 with vertical))) not (347/101 and (print\$4 with vertical))) not (347/109 and (print\$4 with vertical))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/01/09 15:24
-	18	1	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/01/09 15:30
-	2518	400/\$.ccls. and (print\$4 with vertical)	USPĀT; US-PGPUB; EPO; JPO; DERWENT;	2003/01/09 16:13
-	139	400/\$.ccls. and (vertical adj print\$4)	IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/01/09 16:17



,				<u>•</u>
_	139	(400/\$.ccls. and (vertical adj print\$4)) not (347/104 and (print\$4 with vertical))	USPAT; US-PGPUB; EPO; JPO; DERWENT;	2003/01/09 15:32
-	139	((400/\$.ccls. and (vertical adj print\$4)) not (347/104 and (print\$4 with vertical))) not (347/105 and (print\$4 with vertical))	IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;	2003/01/09 15:32
-	138	(((400/\$.ccls. and (vertical adj print\$4)) not (347/104 and (print\$4 with vertical))) not (347/105 and (print\$4 with vertical))) not (347/101 and (print\$4 with vertical))	IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/01/09 15:32
-	138	((((400/\$.ccls. and (vertical adj print\$4)) not (347/104 and (print\$4 with vertical))) not (347/105 and (print\$4 with vertical))) not (347/101 and (print\$4 with vertical))) not (347/109 and (print\$4 with vertical))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/01/09 15:32
-	53		USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/01/09 16:08
_	39	(347/108 and (print\$4 with vertical)) not (347/104 and (print\$4 with vertical))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/01/09 16:08
-	39	((347/108 and (print\$4 with vertical)) not (347/104 and (print\$4 with vertical))) not (347/105 and (print\$4 with vertical))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/01/09 16:08
-	37	(((347/108 and (print\$4 with vertical)) not (347/104 and (print\$4 with vertical))) not (347/105 and (print\$4 with vertical))) not (347/101 and (print\$4 with vertical))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/01/09 16:08
-	32	((((347/108 and (print\$4 with vertical)) not (347/104 and (print\$4 with vertical))) not (347/105 and (print\$4 with vertical))) not (347/101 and (print\$4 with vertical))) not (347/109 and (print\$4 with vertical))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/01/09 16:08
_	32	(((((347/108 and (print\$4 with vertical)) not (347/104 and (print\$4 with vertical)) not (347/105 and (print\$4 with vertical)) not (347/105 and (print\$4 with vertical))) not (347/101 and (print\$4 with vertical))) not (347/109 and (print\$4 with vertical))) not (400/\$.ccls. and (vertical adj print\$4))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/01/09 16:09
_	2721	347/\$.ccls. and (print\$4 with vertical)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/01/09 16:17
_	126	347/\$.ccls. and (vertical adj print\$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT;	2003/01/09 16:38
_	120	(347/\$.ccls. and (vertical adj print\$4)) not (347/104 and (print\$4 with vertical))	IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/01/09 16:18

-	125	(347/\$.ccls. and (vertical adj print\$4)) not (347/105 and (print\$4 with vertical))	USPAT; US-PGPUB; EPO; JPO;	2003/01/09 16:18
			DERWENT; IBM_TDB	
-	119	((347/\$.ccls. and (vertical adj print\$4))	USPAT;	2003/01/09 16:18
		not (347/104 and (print\$4 with vertical))) not (347/105 and (print\$4 with vertical))	US-PGPUB; EPO; JPO; DERWENT; IBM TDB	
-	114	(((347/\$.ccls. and (vertical adj print\$4)) not (347/104 and (print\$4 with vertical))) not (347/105 and (print\$4 with vertical))) not (347/101 and (print\$4 with vertical))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/01/09 16:18
-	114	((((347/\$.ccls. and (vertical adj print\$4)) not (347/104 and (print\$4 with vertical))) not (347/105 and (print\$4 with vertical))) not (347/101 and (print\$4 with vertical))) not (347/109 and (print\$4 with vertical))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/01/09 16:19
_	92	(((((347/\$.ccls. and (vertical adj print\$4)) not (347/104 and (print\$4 with vertical))) not (347/105 and (print\$4 with vertical))) not (347/101 and (print\$4 with vertical))) not (347/109 and (print\$4 with vertical))) not (400/\$.ccls. and (vertical adj print\$4))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/01/09 16:19
-	90	101/\$.ccls. and (vertical\$4 adj print\$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/01/09 16:40
-	70	(101/\$.ccls. and (vertical\$4 adj print\$4)) not (400/\$.ccls. and (vertical adj print\$4))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/01/09 16:40
-	70	((101/\$.ccls. and (vertical\$4 adj print\$4)) not (400/\$.ccls. and (vertical adj print\$4))) not (347/108 and (print\$4 with vertical))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/01/09 16:40
-	70	(((101/\$.ccls. and (vertical\$4 adj print\$4)) not (400/\$.ccls. and (vertical adj print\$4))) not (347/108 and (print\$4 with vertical))) not (347/\$.ccls. and (vertical adj print\$4))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/01/09 16:41
_	10	347/101 and print\$4 and (feed\$4 with straight)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/01/09 17:01
	20	(("6405055") or ("6360174") or ("5444192") or ("5446783") or ("6119931") or ("5110226") or ("6312124") or ("5447442") or ("6241351") or ("6467688") or ("6326097") or ("6417913") or ("5848401") or ("5593236") or ("5501535") or ("5240334") or ("5542487") or ("6219227") or ("6091514") or ("5802420")).PN.	USPAT; US-PGPUB	2003/01/09 17:27
_	1	("5731829").PN.	USPAT; US-PGPUB	2003/01/09 17:27
_	1	("5731829").PN.	USPAT; US-PGPUB	2003/01/10 14:34
-	1	("6405055").PN.	USPAT; US-PGPUB	2003/01/10 14:34
_	394	(347/101).CCLS.	USPAT; US-PGPUB	2003/06/17 13:43

	657	(347/101).CCLS.	USPAT;	2003/06/17 13:49
			US-PGPUB;	
			EPO; JPO;	
		,	DERWENT;	
			IBM TDB	
1_	788	(347/104).CCLS.	USPAT;	2003/06/17 13:58
ļ	'00	(31.71017.0000.	US-PGPUB;	= = = = = = =
			EPO; JPO;	
1			DERWENT;	
			IBM TDB	1
	004	(0.45 /1.05)		0000/06/17 14 00
-	834	(347/105).CCLS.	USPAT;	2003/06/17 14:03
			US-PGPUB;	
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
-	884	347/101	USPAT;	2003/06/17 15:19
			US-PGPUB	
<del>-</del>	490	347/101 not ((347/101).CCLS.)	USPAT;	2003/06/17 14:03
			US-PGPUB	
<u>-</u>	406	347/108	USPAT;	2003/06/17 14:12
	100	3177 200	US-PGPUB;	
			EPO; JPO;	
		,	DERWENT;	
			IBM TDB	
	0000	101/0 1 1 / 1 / 1 / 1 / 1 /		2002/06/17 15-26
-	2330	101/\$.ccls. and (print\$4 with vertical)	USPAT;	2003/06/17 15:36
			US-PGPUB;	
		•	EPO; JPO;	
			DERWENT;	
			IBM_TDB	
-	55	101/\$.ccls. and (vertical adj print\$4)	USPAT;	2003/06/17 15:37
			US-PGPUB;	
		,	EPO; JPO;	
			DERWENT;	
		•	IBM TDB	
1_	1	347/101 and (photoconductive adj drum\$2)	USPAT;	2003/06/17 15:20
	1	54//101 and (photoconductive da) dramy2/	US-PGPUB	2003/00/11 10120
	450	347/\$.ccls. and (photoconductive adj	USPAT;	2003/06/17 15:21
-	450		US-PGPUB	2003/00/17 13.21
	_	drum\$2)		0000/06/17 15-01
-	2	347/\$.ccls. and ((photoconductive adj	USPAT;	2003/06/17 15:31
		drum\$2) with (inkjet or ink adj jet))	US-PGPUB	0000/06/15 15 01
-	140	347/\$.ccls. and ((photoconductive adj	USPAT;	2003/06/17 15:31
		drum\$2) with (laser with scan\$4))	US-PGPUB	
_	2566	400/\$.ccls. and (print\$4 with vertical)	USPAT;	2003/06/17 15:36
			US-PGPUB;	
1			EPO; JPO;	
			DERWENT;	
			IBM TDB	
1_	140	400/\$.ccls. and (vertical adj print\$4)	USPĀT;	2003/06/17 15:37
		100,4.0010; and (tolelout day princys)	US-PGPUB;	= = = = = = = = = = = = = = = = = = =
			EPO; JPO;	
			DERWENT;	
	1		IBM TDB	
	1	(HE000004H) PN		2003/06/17 16:18
-	1	("5929894").PN.	USPAT;	2003/00/1/ 10:18
	1	(1) 100	US-PGPUB	0000/10/05 10 10
-	244	((hook\$2 or (support\$4 adj bracket\$2))	USPAT;	2003/12/05 19:40
		with vertical with wall with pivot\$4)	US-PGPUB;	
			EPO; JPO;	
			DERWENT;	
1			IBM_TDB	
-	17	((hook\$2 or (support\$4 adj bracket\$2))	USPĀT;	2003/12/05 18:21
1		with vertical with wall with pivot\$4 with	US-PGPUB;	
		hang\$4)	EPO; JPO;	
1		<b>y</b>	DERWENT;	
			IBM TDB	
_	227	(((hook\$2 or (support\$4 adj bracket\$2))	USPAT;	2003/12/05 18:21
	""	with vertical with wall with pivot\$4)) not	US-PGPUB;	2003,12,03 10.21
	1			
		(((hook\$2 or (support\$4 adj bracket\$2))	EPO; JPO;	·
		with vertical with wall with pivot\$4 with	DERWENT;	
	<u> </u>	hang\$4))	IBM TDB	<u></u>

_	7	((hook\$2 or (support\$4 adj bracket\$2)) with hang\$4 with parapet)	USPAT; US-PGPUB;	2003/12/05 19:40
		-	EPO; JPO; DERWENT;	
		,	IBM_TDB	•
_	1	("6464317").PN.	USPAT; US-PGPUB	2003/12/08 15:33
-	124	(christmas with ornament) with (hang\$4 or hook\$2)	USPAT; US-PGPUB;	2004/01/13 09:46
1		inony27	EPO; JPO;	
			DERWENT;	
_	201765	   bracket\$2 with (mount\$4 or hang\$4)	IBM_TDB USPAT;	2004/01/13 09:55
	201703		US-PGPUB;	2004/01/13 03:33
			EPO; JPO; DERWENT;	
			IBM TDB	·
-	37786	,	USPAT;	2004/01/13 09:56
		vertical	US-PGPUB; EPO; JPO;	
			DERWENT;	
	0517	(//	IBM_TDB USPAT;	2004/01/13 09:57
_	2517	((bracket\$2 with (mount\$4 or hang\$4)) same vertical) and portable	US-PGPUB;	2004/01/13 09:5/
		· •	EPO; JPO;	
1		·	DERWENT; IBM TDB	
-	1355		USPĀT;	2004/01/13 09:57
		vertical) and portable	US-PGPUB; EPO; JPO;	
			DERWENT;	
	90	//b	IBM_TDB USPAT;	2004/01/13 10:05
_	90	((bracket\$2 with (mount\$4 or hang\$4)) with vertical) with portable	US-PGPUB;	2004/01/13 10:05
		-	EPO; JPO;	
			DERWENT; IBM TDB	
_	11395	,,, , , , , , , , , , , , , , , , , ,	USPĀT;	2004/01/13 10:06
		vertical) and wall\$2	US-PGPUB; EPO; JPO;	
	,		DERWENT;	
_	3156	((bracket\$2 with (mount\$4 or hang\$4)) with	IBM_TDB USPAT;	2004/01/13 10:06
	3100	vertical with wall\$2)	US-PGPUB;	2001, 02, 20 20100
			EPO; JPO; DERWENT;	·
		·	IBM_TDB	
_	406	((bracket\$2 with (mount\$4 or hang\$4)) with vertical with wall\$2 with pivot\$5)	USPAT; US-PGPUB;	2004/01/13 10:06
		volution watty2 with pivoty5/	EPO; JPO;	
			DERWENT;	
_	405	(((bracket\$2 with (mount\$4 or hang\$4))	IBM_TDB USPAT;	2004/01/13 10:39
		with vertical with wall\$2 with pivot\$5))	US-PGPUB;	
		<pre>not (((bracket\$2 with (mount\$4 or hang\$4)) with vertical) with portable)</pre>	EPO; JPO; DERWENT;	
		_	IBM_TDB	2004/01/12 12 15
-	36	B41J002/01 and (bracket\$2 with (mount\$5 or hang\$4))	USPAT; US-PGPUB;	2004/01/13 10:46
			EPO; JPO;	
			DERWENT; IBM TDB	
_	4	B41J002/01 and (bracket\$2 with pivot\$4)	USPĀT;	2004/01/13 10:45
			US-PGPUB; EPO; JPO;	
			DERWENT;	
	1	B41J029/13 and (bracket\$2 with pivot\$4)	IBM_TDB USPAT;	2004/01/13 10:45
_		Datoo23/13 and (Diacker32 with prvoc34)	US-PGPUB;	2004/01/13 10:45
			EPO; JPO;	
			DERWENT; IBM TDB	
	•		·	<del> </del>

[	1 0	B41J002/01 and (bracket\$2 same pivot\$4)	USPAT;	2004/01/13 10:45
		Pirons, or and (prackers same bisocal)	US-PGPUB;	2004/01/13 10:45
			EPO; JPO;	
			DERWENT;	
			IBM TDB	
_		B41J029/13 and (bracket\$2 with (mount\$5 or		2004/01/12 12:04
-	4		USPAT;	2004/01/13 12:04
	İ	hang\$4))	US-PGPUB;	·
			EPO; JPO;	
			DERWENT;	
	20	247/411 /1	IBM_TDB	0004/01/10 10 14
-	30	1 , , , , , , , , , , , ,	USPAT;	2004/01/13 12:14
		inch\$2)	US-PGPUB;	
:	ł		EPO; JPO;	
	1		DERWENT;	
		247/2	IBM_TDB	
-	12	, , , , , , ,	USPAT;	2004/01/13 12:14
		inch\$2)	US-PGPUB;	
			EPO; JPO;	
			DERWENT;	
1		l	IBM_TDB	
-	9	1 (01), (10000) and (1110000 11201 000110000 11201	USPAT;	2004/01/13 13:52
		inch\$2)) not (347/\$.ccls. and (media with	US-PGPUB;	·
		size with inch\$2))	EPO; JPO;	
			DERWENT;	
			IBM TDB	